

REMARKS

Claims 1-21 are present in this application. Claims 1, 15, 18, and 19 are independent.

Allowable Subject Matter

Applicants thank the Examiner for indicating allowable subject matter.

In particular, the Examiner is thanked for indicating that claims 19-21 are allowed, that claims 15-17 would be allowable if amended to overcome the rejection under 35 U.S.C. 101, and that claims 9-11, and 13 (which indirectly depend from claim 1) are objected to as being dependent upon a rejected base claim, but would otherwise be allowable if re-written into independent form.

Claim Rejection under 35 USC 101

Claims 1, 15, and 18 have been rejected under 35 U.S.C. § 101, as allegedly being directed to a non-statutory "signal claim." Applicants respectfully disagree that claims 1, 15, or 18 are directed to a "signal," *per se*. In order to pursue an early indication of allowance, Applicants have amended claims 1, 15, and 18 to recite explicit steps or structure, for the respective method claims 1 and 15, and apparatus claim 18.

Applicants submit that claims 1 and 15 are clearly directed to "a transmission method." Claim 18 is directed to "a transmission system." Furthermore, claims 1 and 15 have been amended to explicitly recite a transmitting step. Claim 18 has been amended to explicitly recite that the signal are the repeated single patterns having the inserted different pattern. A transmission method constitutes the patentable category of "process." A transmission system

constitutes the patentable category of "machine." Thus, each of the claims is directed to a statutory category.

Applicants request that the rejection be reconsidered and withdrawn.

Claim Rejection under 35 USC 102(e) - Gulick

Claims 1-8, 12, 14, and 18 remain rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 5,048,012 (Gulick). Applicants respectfully traverse this rejection. In addition, Applicants request clarification of the Office Action (M.P.E.P. § 707.07(f)).

For the limitation "when the information waveform signal consecutively repeats a single pattern," the rejection states that, "the link provided by DLC 52-fig. 2 is said to be idle when frames are not being transmitted. In other words, the link may be said to be occupied by an idling waveform or repeating an idling waveform." To the contrary, the claim is directed to a state "before transmitting the single patterns."

Applicants submit that Gulick does not teach that the link is occupied by an idling waveform. The statement that Gulick is said to be idle when frames are not being transmitted appears to be speculation by the Examiner, without supporting evidence.

For the limitation of "a different pattern is inserted between the same patterns before transmitting the single patterns," the rejection appears to rely on the all ONE's pattern of the Mark Idle for transmission of an idle status.

Claim 1 recites both a consecutively repeated "single pattern" and a "different pattern." It is Applicants understanding that the presumed "idling waveform" allegedly teaches the claimed consecutively repeated "single pattern," and the "ONEs pattern" allegedly teaches the claimed

"different pattern." However, it may be that the rejection alleges that the "ONEs pattern" is the claimed "single pattern."

Applicants request clarification for the record as to what teaching in Gulick is being alleged as a "single pattern," and what teaching is being alleged as a "different pattern."

Because the rejection is ambiguous, Applicants present arguments for each interpretation of the rejection.

In the case where the Mark Idle is considered to teach the claimed "different pattern," the claims require that the Mark Idle must be inserted between repeated single patterns before transmitting. The rejection indicates that a section at column 7, lines 52-62, teaches an inherent idling waveform. However, this section of Gulick teaches aspects of Mark Idle, as well as a Flag Idle condition. Applicants find no mention of an idling waveform in this section. Furthermore, the section indicates that Mark Idle and Flag Idle are alternatives that are not used in combination. Flag Idle is transmitted between frames, while Mark Idle may be transmitted while frames are not being transmitted.

Furthermore, Gulick at column 46, lines 32-37 discloses that either a Flag Idle or Mark Idle is transmitted continuously. Thus, even if there were an "idling waveform," the Mark Idle and Flag Idle would be transmitted instead of the idling waveform. The "idling waveform" would not be transmitted as required in the claim. The claim requires that the information waveform signal that consecutively repeats a single pattern be periodic. Applicants submit that even if Gulick were to be said to suggest an idling waveform, there is no indication that the idling waveform would be periodic. Also, there is no indication that such an idling waveform would repeat a single pattern. There is no teaching of inserting the Mark Idle waveform between

consecutive repeating single patterns. Finally, Applicants submit that the explicit teaching in Gulick of "when frames are not being transmitted over the link" clearly expresses absence of transmission of any waveform.

Thus, Applicants submit that even if an absence of transmission could be considered an "idling waveform," Gulick still does not teach or suggest that such "idling waveform" would be "periodic," or that the "idling waveform" would be a repeated single pattern, or that a Mark Idle would be inserted between consecutive repeating single patterns. Rather, Gulick clearly teaches transmission of either a Mark Idle or Flag Idle, but not an idling waveform that meets the required limitations of the present claims.

In the alternative, if Mark Idle is being alleged as teaching the claimed single pattern, Applicants submit that Gulick fails to teach a different pattern that is inserted between consecutive repetitions of the single pattern.

The above stated differences apply as well to claim 18.

Claim 3

Claim 3 recites that a different pattern is inserted between the single patterns at "a random interval."

The rejection states that "the microprocessor 18-fig. 3 can be programmed to send the MI at random interval." Applicants disagree.

There is no teaching or suggestion that the Mark Idle can be sent at a random interval. Instead, Gulick at column 46, lines 32-37 describes that either the Flag Idle or Mark Idle is transmitted continuously when not In-Frame. Therefore, the interval is fixed, not random.

Thus, Applicants submit that Gulick fails to teach at least the features recited in claim 3.

Claim 5

Claim 5 recites that the different pattern is a pattern which is randomly selected from a group consisting of a plurality of different patterns. Gulick discloses that Mark Idle would be transmitted when frames are not being transmitted. Gulick discloses that Flag Idle can be transmitted prior to and between frames. Thus, Flag Idle is not transmitted when frames are not being transmitted, i.e., would not be used in place of Mark Idle. Applicants submit that Mark Idle and Flag Idle would not be considered a "group consisting of a plurality of different patterns."

Thus, Applicants submit that Gulick fails to teach at least the features recited in claim 5.

Claims 6 to 8

The rejection inconsistently refers to the Mark Idle as teaching the claimed single pattern. If Mark Idle is alleged as teaching the claimed single pattern, Applicants submit that Gulick fails to teach a different pattern that is inserted between consecutive repetitions of the single pattern.

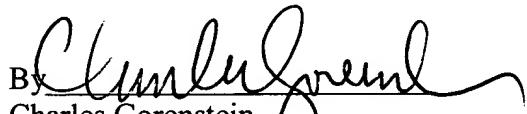
Conclusion

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Robert W. Downs (Reg. No.48,222) at the telephone number of (703) 205-8000, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 12-235 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

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Respectfully submitted,

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